REMARKS

Claims 1-22 are pending. By this Amendment, claims 1-3, 6-13 and 19 are amended and claims 21 and 22 are added. Claims 1-3, 6-13 and 19 are amended to more clearly recite the subject matter disclosed in the claims. In particular, as the term "determine" and the term "create" have the same meaning in this claim, these amendments are not narrowing. No new matter has been added. Reconsideration in view of the above amendments and following remarks is respectfully requested.

The attached Appendix includes a marked-up copy of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Wu during the September 11, 2002 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

An Information Disclosure Statement with Form PTO-1449 was filed in the above-captioned patent application on February 8, 2002. Applicants have not yet received from the Examiner a copy of the Form PTO-1449 initialed to acknowledge the fact that the Examiner has considered the disclosed information. The Examiner is requested to initial and return to the undersigned a copy of the Form PTO-1449. For the convenience of the Examiner, a copy of that form is attached.

Claim 11 is objected to for reciting "compressed" instead of "decompressed". Claim 11 is amended responsive to the objection. It is respectfully requested that the objection be withdrawn.

Claims 1-5, 7-8, 10-15, 17-18 and 20 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,011,868 to van den Branden et al. (hereinafter "Branden"); claims 6 and 16 are rejected under 35 U.S.C. §103(a) over Branden in view of U.S. Patent 5,150,433 to Daly; and claims 9 and 19 are rejected under 35 U.S.C. §103(a) over Branden in view of "Statistical Analysis of the DCT Coefficients and Their Quantization Error", Yovanof

et al., IEEE, vol. 1, pgs. 601-605, 1997 (hereinafter "Yovanof"). The rejections are respectfully traversed.

As discussed during the personal interview, Branden fails to teach or disclose a method for processing decompressed image data, comprising receiving decompressed image data, creating an estimated quantization table from the received decompressed image data, and processing the decompressed image data based on the created estimated quantization table to form processed electronic image data, as recited in claim 1 and as similarly recited in claim 11.

As discussed during the personal interview, Branden discloses a method for monitoring, analyzing and predicting the visual quality of decompressed video sequences contained in the MPEG video bitstream (col. 1, lines 5-16). In Branden, the video decoder (50) dequantizes the quantized DCT coefficients based on the appropriate quantization tables and the quantization scale to reconstruct DCT coefficients. Further, col. 12, lines 36 - col. 13 of Branden, which is referred to on page 2 of the Office Action, discloses a method for estimating the amount of spatial distortion of the resulting video output stream due to quantization error, not the quantization table.

Applicants submit that nowhere does Branden teach or disclose a method for processing decompressed image data, comprising receiving decompressed image data, creating an estimated quantization table from the received decompressed image data, and processing the decompressed image data based on the created estimated quantization table to form processed electronic image data, as recited in claim 1 and as similarly recited in claim 11.

For at least these reasons, Applicants respectfully submit that Branden fails to teach or disclose all the features of claims 1-5, 7-8, 17-18 and 20. Thus, Branden fails to anticipate the subject matter of claims 1-5, 7-8, 10-15, 17-18 and 20.

In addition, Applicants respectfully submit that both Yovanof and Daly fail to overcome the above-outlined deficiencies of Branden, as applied to claims 1 and 11 above. Therefore, the combination of Branden and Daly fails to teach, disclose or suggest all the features of claims 6 and 16 and the combination of Branden and Yovanof fails to teach, disclose or suggest all the features of claims 9 and 19. Thus, the combination of Branden and Daly fails to render obvious the subject matter of claims 6 and 16 and the combination of Branden and Yovanof fails to render obvious the subject matter of claims 9 and 19. It is respectfully requested that the rejections be withdrawn.

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-22 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number set forth below.

Respectfully submitted,

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JAO:MMI/ccs
Attachments:
Appendix
Amendment Transmittal
February 8, 2002 PTO-1449 and PTO-date-stamped receipt

Date: September 25, 2002

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 24-0037

APPENDIX

Changes to Claims:

Claims 21-22 are added.

The following is a marked-up version of each amended claim:

1. (Amended) A method for processing decompressed image data, comprising:

receiving decompressed image data;

~~determining~~creating an estimated quantization table from the received decompressed image data;

processing the decompressed image data based on the created~~determined~~ estimated quantization table to form processed electronic image data.

2. (Amended) The method of claim 1, further comprising further processing of the decompressed image data without using the ~~determined~~created quantization table.

3. (Amended) The method of claim 1, wherein ~~determining~~creating the estimated quantization table comprises ~~determining~~creating the estimated quantization table based on at least one maximum likelihood estimation.

6. (Amended) The method of claim 1, wherein the decompressed data comprises image data blocks, and ~~determining~~creating the estimated quantization table comprises:

determining, for each block, if that block has at least one of truncated image data values or uniform image data values; and

excluding any block having at least one of truncated image data values or uniform image data values.

7. (Amended) The method of claim 1, wherein creating~~determining~~ the estimated quantization table further comprises generating transformed image data from the decompressed image data using a discrete cosine transform.

8. (Amended) The method of claim 7, wherein ~~determining~~creating the estimated quantization table further comprises generating a histogram from the transformed image data.

9. (Amended) The method of claim 8, wherein creating~~determining~~ the quantization table comprises:

identifying a level of a main lobe of the histogram having a highest peak and two adjacent levels of the histogram adjacent to the identified level; and

~~determining~~creating the quantization table based only on the identified and adjacent levels of the histogram.

10. (Amended) The method of claim 8, wherein ~~determining~~creating the estimated quantization table further comprises rounding each DCT coefficient of the transformed image data.

11. (Amended) A system for processing decompressed image data, comprising:

a receiver that receives decompressed image data;

a quantization table estimator that ~~determines~~creates an estimated quantization table from the received decompressed image data; and

a processor that processes the decompressed image data based on the ~~determined~~created estimated quantization table to form processed electronic image data.

12. (Amended) The system of claim 11, wherein the processor further processes the decompressed image data without using the ~~determined~~created quantization table.

13. (Amended) The system of claim 11, wherein the quantization table estimator creates~~determines~~ the estimated quantization table based on at least one maximum likelihood estimation.

19. (Amended) The system of claim 18, wherein:

the quantization table estimator further comprises a peak identifier that identifies a level of a main lobe of the histogram having a highest peak and two adjacent levels of the histogram adjacent to the identified level; and

the quantization table estimator ~~determines~~creates the quantization table based only on the identified and adjacent levels of the histogram.